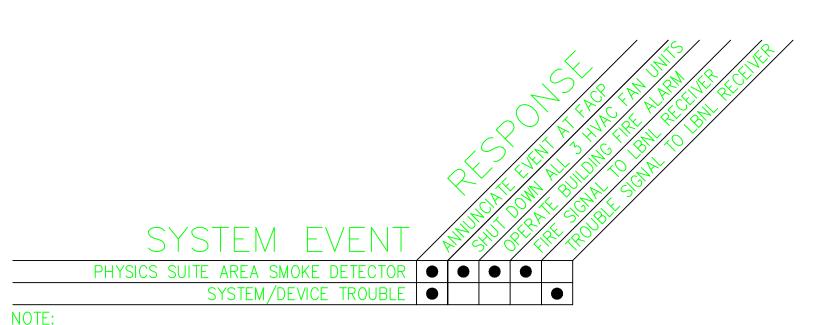


- 1) THE DETAILED DESIGN, FABRICATION, PROCUREMENT, AND INSTALLATION OF THE FIRE PROTECTION SYSTEMS ADDITIONS AND MODIFICATIONS AS INDICATED ON THE CONTRACT DRAWINGS.
- 2) THE FIRE PROTECTION SYSTEM ADDITIONS CONSIST OF NEW AREA SMOKE DETECTORS ON THE 6TH FLOOR PHYSICS SUITE, RELAYS FOR THE SHUTDOWN OF NEW THREE HVAC FAN UNITS SERVING THE AREA, AND THE RELOCATION OF AN EXISTING HEAT DETECTOR. THE OPERATION OF THE NEW AREA SMOKE DETECTORS SHALL CAUSE FOR THE SHUTDOWN OF ALL OF THE NEW HVAC FAN UNITS.
- 3) INSTALLATION OF NEW CONDUIT, RACEWAY SYSTEM MODIFICATIONS AND RACEWAYS FOR THE FIRE ALARM SYSTEM MODIFICATIONS.
- 4) ALL PENETRATIONS THROUGH WALLS, FLOORS AND CEILINGS NECESSARY FOR THE INSTALLATION OF THE FIRE PROTECTION SYSTEMS INCLUDING THE INSTALLATION OF APPROVED FIRESTOP ASSEMBLIES NECESSARY TO MAINTAIN THE DESIGNED FIRE RESISTANCE RATING OF THE WALL, CEILING, OR FLOOR ASSEMBLY.
- 5) DELETIONS, MODIFICATIONS, AND ADDITIONS TO THE EXISTING FIRE ALARM SYSTEM AS INDICATED.
- 6) SYSTEMS AND DEVICE TESTING.
- 7) THE SUBCONTRACTOR SHALL BE RESPONSIBLE FOR ESTABLISHING AND IMPLEMENTING ALL SAFETY PROGRAMS AND PROCEDURES FOR THIS PROJECT AND SHALL COMPLY WITH ALL FEDERAL, STATE AND LOCAL SAFETY AND HEALTH REGULATIONS.
- 8) THE CONTRACT DRAWINGS ARE DIAGRAMMATIC ONLY. SUBCONTRACTOR SHALL DETERMINE THE ACTUAL MEASUREMENTS AND MAKE ANY AND ALL SUCH LENGTH AND OFFSET ADJUSTMENTS AND FIRE ALARM CONTROL UNIT PROGRAMMING AS MAY BE NECESSARY TO COMPLETE THE INSTALLATION AT NO CHANGE IN THE CONTRACT PRICE THE DRAWINGS ARE NOT INTENDED TO RELIEVE THE SUBCONTRACTOR OF ANY RESPONSIBILITY FOR AVOIDING CONFLICTS OR OBSTRUCTIONS, OR FOR INSTALLING THE FIRE ALARM DEVICES AND EQUIPMENT AS REQUIRED TO PROVIDE COMPLETE PROTECTION OF THE DESIGNATED AREAS IN ACCORDANCE WITH THE REQUIREMENTS OF THE REFERENCED STANDARDS AND THE SPECIFICATIONS. WRITTEN APPROVAL SHALL BE OBTAINED FROM THE OWNER'S REPRESENTATIVE PRIOR TO MAKING ANY MAJOR DEVIATIONS FROM THE ARRANGEMENT AND LAYOUT SHOWN ON THE DRAWINGS.
- 9) ALL EQUIPMENT SHALL BE NEW, AND APPROVED AND/OR LISTED BY UNDERWRITERS' LABORATORIES OR FACTORY MUTUAL.
- 10) SYSTEM, EQUIPMENT, INSTALLATION, AND MATERIALS AND METHODS USED SHALL COMPLY WITH THE FOLLOWING:
- A) THE REQUIREMENTS OF THE LAWRENCE BERKELEY NATIONAL LABORATORY.
- B) NATIONAL FIRE PROTECTION ASSOCIATION (NFPA) 72 NATIONAL FIRE ALARM CODE, CURRENT EDITION.
- C) CALIFORNIA BUILDING AND FIRE CODES, 2007 EDITIONS.
- D) MANUFACTURER'S RECOMMENDATIONS AND GUIDELINES.

- EXISTING FIRE CALL BOX.
- NEW SMOKE PHOTO ELECTRIC DETECTOR. SEE DETAIL "B" TO ACCOMMODATE NEW INSULATION
- REL NEW HVAC FAN UNIT SHUTDOWN RELAY
- \_\_\_\_ EXISTING FIRE ALARM CONDUIT
- \_\_\_\_\_ NEW FIRE ALARM CONDUIT (LOOP AS SHOWN)
- FIRE ALARM ELECTRICAL JUNCTION BOX

## SEQUENCE OF OPERATIONS

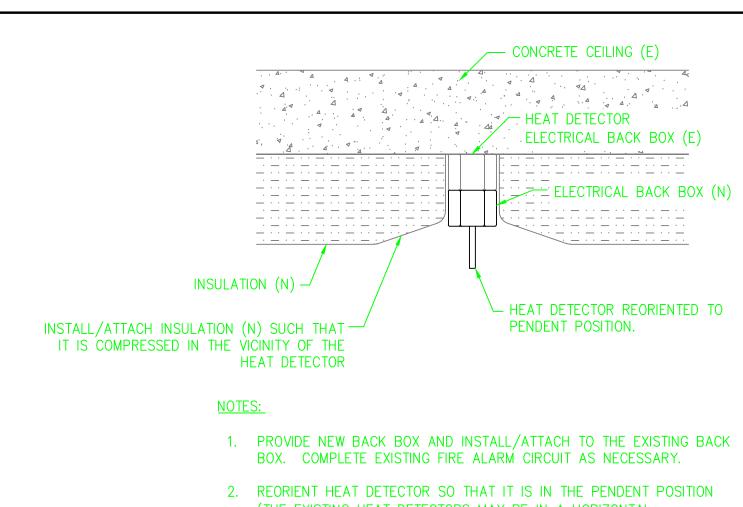


THE SEQUENCE OF OPERATIONS ABOVE ADDRESSES ACTIONS AS A RESULT OF THIS PROJECT ONLY (E.G. ALL BUILDING FIRE ALARM FUNCTIONS ARE NOT SHOWN).

## SPECIAL NOTES REGARDING CIRCUIT ROUTING

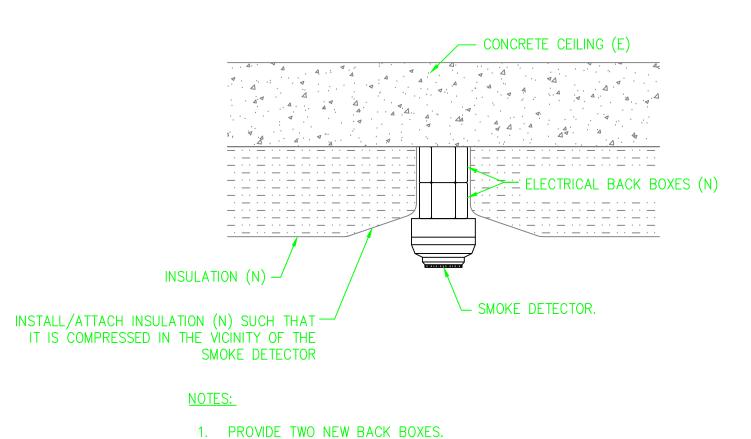
- THESE DRAWINGS SHOW A VIABLE ROUTING FOR THE NEW FIRE ALARM CIRCUITS UTILIZING A NEW RACEWAY SYSTEM FROM AN EXISTING POINT IN THE SYSTEM. THE SUBCONTRACTOR MAY ROUTE THE NEW DETECTION AND HVAC FAN SHUTDOWN RELAY CIRCUITS UTILIZING THE EXISTING RACEWAYS SERVING EXISTING FIRE ALARM EQUIPMENT FOR THESE NEW CIRCUITS PROVIDED:
- 1) ADEQUATE SPACE IS AVAILABLE WITHIN THE EXISTING RACEWAY TO THE ACCOMMODATE THE NEW CONDUCTORS/CABLES WITHOUT EXCEEDING THE RACEWAY FILL SPECIFIED IN THE CALIFORNIA ELECTRICAL CODE.
- 2) LBNL ACCEPTS ANY PROPOSED USE OF THE EXISTING RACEWAYS.

NSULTING A/E FIRM



- (THE EXISTING HEAT DETECTORS MAY BE IN A HORIZONTAL
- 3. INSTALL/ATTACH NEW INSULATION SO THAT IT IS COMPRESSED IN THE VICINITY OF THE HEAT DETECTOR TO PROVIDE THE APPROPRIATE CLEARANCE FOR DETECTOR OPERATION.

A HEAT DETECTOR MODIFICATION DETAIL NO SCALE



- 2. INSTALL/ATTACH NEW INSULATION SO THAT IT IS COMPRESSED IN THE VICINITY OF THE SMOKE DETECTOR TO PROVIDE THE APPROPRIATE CLEARANCE FOR DETECTOR OPERATION.

B SMOKE DETECTOR DETAIL NO SCALE

LBNL SEISMIC PHASE 1 09/14/2010 HYT **BUILDING 50 - PHYSICS SUITE** 6TH LEVEL FIRE ALARM DEMOLITION AND JAD FILE PATH 00023155 MODIFICATIONS PLANS ½"=1'-0" UNO UNIVERSITY OF CALIFORNIA

UNIVERSITY OF CALIFORNIA ıııııı LAWRENCE BERKELEY NATIONAL LABORATORY FACILITIES DIVISION **BERKELEY LAB** 

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**RECORD DRAWING** 

09/14/2010

REVISION DRAWN CHECKED APPR'D DATE NUMBER BY BY BY

PROFESSIONAL SEAL (IF REVISION, APPLIES ONLY TO REVISED WORK

(PROGRESS, ESTIMATE, BID, CONSTRUCTION CONFORMED, REVISION, AS-BUILT)

09/14/2010 | RECORD DRAWING

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6N50E142 FA1.6.0-50 PROJECT NO. FN7200